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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/781,978	02/14/2001	Samuel D. Harkness IV	146712001400	9538

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EXAMINER

FLETCHER III, WILLIAM P

ART UNIT PAPER NUMBER

1762

DATE MAILED: 02/07/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/781,978

Applicant(s)

HARKNESS ET AL.

Examiner

William P. Fletcher III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 12-19 and 21-24 is/are pending in the application.
- 4a) Of the above claim(s) 1-9 and 20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 10, 12-19, 21 and 22 is/are rejected.
- 7) ☒ Claim(s) 23 and 24 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 February 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment and response filed 22 Nov. 2005 is acknowledged. Claims 1-10 and 12-24 are pending of which claims 1-9 and 20 are withdrawn.

Response to Arguments

2. Because the instant application and the Chen reference were commonly owned and/or assigned at the time of the instantly claimed invention, Chen cannot be applied against the claims per 35 USC 103(c).

3. New grounds of rejection, necessitated by applicant's amendment, are set-forth below.

Election/Restrictions

4. This application contains claims 1-9 and 20 drawn to an invention nonelected with traverse as set-forth in the Office action mailed 5 Sept. 2002. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later

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invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 10, 12-19, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brady et al. (5,571,591 A) in view of Bian et al. (US 6,143,388 A).

The teaching of Brady is detailed in the previous Office action and this reference is applied again here for the same reasons.

With respect to claim 10, as amended, and claims 17-19:

Brady teaches that the magnetic recording medium may be an alloy of Co (3:47-49), but does not explicitly state that the alloy comprises CoCrPt. Bian teaches forming a magnetic recording layer comprising CoCrPt (5:7-8, for example). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of Brady so as to utilize, as the Co-alloy magnetic recording layer, a layer that comprises CoCrPt, which Bian teaches is suitable for use as such. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully depositing a magnetic recording layer.

While Brady teaches a multi-layer magnetic recording medium, this reference does not explicitly state the multi-layer structure recited in claim 17. Again, Bian teaches such an arrangement of layers in a magnetic recording medium (Fig. 2). Consequently, it would have been obvious to one of ordinary skill in the art to modify the process of Brady so as to utilize, as the sub-magnetic recording layer structure, the structure of Bian. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully providing a support to the magnetic recording medium.

None of the cited references teaches that the CoCrPt layer has a thickness from about 100 nm to about 400 nm. As noted in the prior Office action, Brady teaches that layer thickness is a result-effective variable effecting the number of layers in the magnetic recording medium, the anneal time, and, consequently, the overall processing time (5:1-12). Absent clear and convincing evidence of unexpected results demonstrating the criticality of the claimed layer thickness, it would have been obvious to one of ordinary skill in the art to optimize this result-effective variable by routine experimentation.¹

8. **Claim 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Brady et al. (5,571,591 A) in view of Nishida et al. (US 5,479,382 A).**

The teaching of Brady is detailed in the previous Office action and this reference is applied again here for the same reasons.

Brady does not explicitly teach that the cap layer comprises Cr.

Nishida teaches magnetic recording media with capping layers including Cr (11:2-34).

It would have been obvious to one of ordinary skill in the art to modify the process of Brady so as to utilize, as the cap layer, a layer comprising Cr. One of ordinary skill in the art would have been motivated to do so by the desire and expectation of successfully forming a cap layer.

Allowable Subject Matter

9. Claims 23 and 24 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

¹ MPEP § 2144.05(II)

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10. The following is a statement of reasons for the indication of allowable subject matter: The prior art neither teaches nor suggests the claimed method in which the cap layer further includes Mn.

Conclusion

11. The prompt development of clear issues in the prosecution history requires that applicant's reply to this Office action be fully responsive (MPEP § 714.02). When filing an amendment, applicant should specifically point out the support for any amendment made to the disclosure, including new or amended claims (MPEP §§ 714.02 & 2163). A fully responsive reply to this Office action, if it includes new or amended claims, must therefore include an explicit citation (i.e., page number and line number) of that/those portion(s) of the original disclosure which applicant contends support(s) the new or amended limitation(s).

12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


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Any inquiry concerning this communication or earlier communications from the examiner should be directed to William P. Fletcher III whose telephone number is (571) 272-1419. The examiner can normally be reached on Monday through Friday, 9 AM to 5 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy H. Meeks can be reached on (571) 272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

WPF 2/3/2006
William Phillip Fletcher III
Patent Examiner, USPTO
Art Unit 1762


BRET CHEN
PRIMARY EXAMINER